



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9522; Directorate Identifier 2016-NM-144-AD]

RIN 2120-AA64

Airworthiness Directives; Gulfstream Aerospace Corporation Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 2009-17-01, which applies to certain Gulfstream Model G-IV, GIV-X, GV-SP airplanes and Model GV airplanes. AD 2009-17-01 currently requires, an inspection for sealant applied to the exterior of the auxiliary power unit (APU) enclosure (firewall), and a revision of the airplane flight manual (AFM), as applicable. Since we issued AD 2009-17-01, we received a report indicating that the type design sealant applied to the APU enclosure is flammable and failed certain tests. This proposed AD would require revising the AFM, and revising the applicability to include additional airplanes. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, GA 31402-2206; telephone 800-810-4853; fax 912-965-3520; email pubs@gulfstream.com; Internet http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9522; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Ky Phan, Aerospace Engineer, Propulsion and Services Branch, ACE-118A, FAA, Atlanta Aircraft Certification Office (ACO) 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5536; fax: 404-474-5606; email: ky.phan@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-9522; Directorate Identifier 2016-NM-144-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On July 31, 2009, we issued AD 2009-17-01, Amendment 39-15991 (74 FR 40061, August 11, 2009) (“AD 2009-17-01”), for certain Gulfstream Model G–IV, GIV-X, GV–SP airplanes, and Model GV airplanes. AD 2009-17-01 requires, for certain airplanes, a one-time inspection for sealant applied to the exterior of the APU enclosure, and for airplanes with the subject sealant and certain other airplanes, a revision of the AFM to prohibit operation of the APU during certain ground and flight operations. AD 2009-17-01 resulted from notification by the airplane manufacturer that an improper, flammable sealant was used on the interior and exterior of the APU enclosure. We issued AD 2009-17-01 to prevent this flammable sealant from igniting the exterior surfaces of the APU enclosure under certain anomalous conditions, such as an APU failure/APU compartment fire, which could result in propagation of an uncontained fire to other critical areas of the airplane.

Actions Since AD 2009-17-01 Was Issued

Since we issued AD 2009-17-01, the manufacturer has notified us that the type design sealant (AMS 3374) applied to the APU enclosure is flammable and failed a certification test and a company test. Paragraph (g) of AD 2009-17-01 required an inspection to determine if GMS 4107 sealant (i.e., not type design sealant) or AMS 3374 sealant was applied to the APU enclosure. If the inspections revealed the application of GMS 4107 sealant, operators were required by paragraph (h) of AD 2009-17-01 to revise the applicable AFM to include the applicable AFM supplement (AFMS). The AFMS provided limitations that prohibited operation of the APU during certain ground and flight operations. At the time AD 2009-17-01 was issued, the type design sealant was AMS 3374 sealant, which was thought to be fireproof. If the inspection required by paragraph (g) of AD 2009-17-01 revealed that AMS 3374 sealant was used, the applicable AFM did not have to be revised. With the discovery that AMS 3374 sealant is flammable, we have determined that AD 2009-17-01 does not address the identified unsafe condition.

Related Service Information under 1 CFR part 51

We reviewed the Gulfstream AFM supplements (AFMSs) identified below. The AFMSs provide operating limitations on the use of the APU during certain ground and flight operations. These documents are distinct since they apply to different airplane models.

(1) Gulfstream Aerospace GIV/G300/G400 AFM Supplement GIV-2016-01, dated July 27, 2016, to the GIV AFM, dated April 22, 1987; the G300 AFM, dated January 15, 2003; and the G400 AFM, dated November 18, 2002.

(2) Gulfstream G450/G350 AFM Supplement G450-2016-01, dated July 27, 2016, to the G450 AFM, dated August 12, 2004; and the G350 AFM, dated October 28, 2004.

(3) Gulfstream GV AFM Supplement GV-2016-01, dated July 27, 2016, to the GV AFM, dated April 11, 1997.

(4) Gulfstream G550/G500 AFM Supplement G550-2016-01, dated July 27, 2016, to the G550 AFM, dated August 14, 2003; and the G500 AFM, dated December 5, 2003.

(5) Gulfstream GVI (G650) AFM Supplement G650-2016-01, dated July 27, 2016, to the GVI (G650) AFM dated, September 7, 2012.

(6) Gulfstream GVI (G650ER) AFM Supplement G650ER-2016-03, dated July 27, 2016, to the GVI (G650ER) AFM, dated October 2, 2014.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

Proposed AD Requirements

This proposed AD would require a revision of the AFM to prohibit operation of the APU during certain ground and flight operation and would add additional airplanes to the applicability.

Interim Action

We consider this proposed AD interim action. If final action is later identified, we might consider further rulemaking then.

Costs of Compliance

We estimate that this proposed AD affects 1,220 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
AFM revision	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$103,700

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2009-17-01, Amendment 39-15991 (74 FR 40061, August 11, 2009), and adding the following new AD:

Gulfstream Aerospace Corporation: Docket No. FAA-2016-9522; Directorate Identifier 2016-NM-144-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2009-17-01, Amendment 39 15991 (74 FR 40061, August 11, 2009) (“AD 2009-17-01”).

(c) Applicability

This AD applies to the Gulfstream Aerospace Corporation airplanes, certificated in any category, identified in paragraphs (c)(1) through (c)(5) of this AD.

- (1) Model G-IV airplanes, having serial numbers (S/Ns) 1000 and subsequent.
- (2) Model GIV-X airplanes, having S/Ns 4001 and subsequent.
- (3) Model GV airplanes, having S/Ns 501 and subsequent.
- (4) Model GV-SP airplanes, having S/Ns 5001 and subsequent.
- (5) Model GVI airplanes, having S/Ns 6001 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 49, Airborne Auxiliary Power; and 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by a report indicating that the type design sealant is flammable and failed a certification test and a company test. We are issuing this AD to provide the flight crew with operating procedures for airplanes that have flammable sealant compound applied to the auxiliary power unit (APU) enclosure (firewall). Under certain anomalous conditions such as an APU failure/APU compartment fire, flammable

sealant could ignite the exterior surfaces of the APU enclosure and result in propagation of an uncontained fire to other critical areas of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Airplane Flight Manual (AFM) Revision

Within 30 days after the effective date of this AD, revise the Limitations Section of the applicable Gulfstream AFM specified in paragraphs (h)(1) through (h)(6) of this AD to include the information in the applicable Gulfstream AFM supplement (AFMS) specified in paragraphs (h)(1) through (h)(6) of this AD. These AFM supplements (AFMSs) introduce operating limitations on the use of the APU during certain ground and flight operations.

Note 1 to paragraph (g) of this AD: This AFM revision may be done by inserting a copy of the applicable AFMS into the applicable AFM specified in paragraphs (h)(1) through (h)(6) of this AD. When the AFMS has been included in the general revision of the AFM, the general revision may be inserted into the AFM, provided the relevant information in the general revision is identical to that in the applicable AFMS specified in paragraphs (h)(1) through (h)(6) of this AD.

(h) AFMSs

For the AFM revision required by paragraph (g) of this AD, insert the applicable AFMS into the applicable Gulfstream AFM identified in paragraphs (h)(1) through (h)(6) of this AD.

(1) Gulfstream GIV/G300/G400 AFM Supplement GIV-2016-01, dated July 27, 2016, to the GIV AFM, dated April 22, 1987; the G300 AFM, dated January 15, 2003; and the G400 AFM, dated November 18, 2002.

(2) Gulfstream G450/G350 AFM Supplement G450-2016-01, dated July 27, 2016, to the G450 AFM, dated August 12, 2004; and the G350 AFM, dated October 28, 2004.

(3) Gulfstream GV AFM Supplement GV-2016-01, dated July 27, 2016, to the GV AFM, dated April 11, 1997.

(4) Gulfstream G550/G500 AFM Supplement G550-2016-01, dated July 27, 2016, to the G550 AFM, dated August 14, 2003; and the G500 AFM, dated December 5, 2003.

(5) Gulfstream GVI (G650) AFM Supplement G650-2016-01, dated July 27, 2016, to the GVI (G650) AFM dated, September 7, 2012.

(6) Gulfstream GVI (G650ER) AFM Supplement G650ER-2016-03, dated July 27, 2016, to the GVI (G650ER) AFM, dated October 2, 2014.

(i) Credit for Previous Actions

This paragraph provides credit for the action required by paragraph (g) of this AD, if that action was performed before the effective date of this AD using the applicable service information specified in paragraphs (i)(1) through (i)(4) of this AD. This service information was incorporated by reference in AD 2009-17-01.

(1) Gulfstream G-IV/G300/G400 AFM Supplement G-IV-2009-02, Revision 1, dated June 25, 2009.

(2) Gulfstream G450/G350 AFM Supplement G450-2009-03, Revision 1, dated June 25, 2009.

(3) Gulfstream GV AFM Supplement GV-2009-03, Revision 1, dated June 25, 2009.

(4) Gulfstream G550/G500 AFM Supplement G550-2009-03, Revision 1, dated June 25, 2009.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (k)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) AMOCs approved previously for paragraph (h) of AD 2009-17-01 are approved as AMOCs for the corresponding provisions of paragraph (g) of this AD.

(k) Related Information

(1) For more information about this AD, contact Ky Phan, Aerospace Engineer, Propulsion and Services Branch, ACE-118A, FAA, Atlanta ACO 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5536; fax: 404-474-5606; email: ky.phan@faa.gov.

(2) For service information identified in this AD, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, GA 31402-2206; telephone 800-810-4853; fax 912-965-3520; email pubs@gulfstream.com; Internet http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on December 16, 2016.

Ross Landes, Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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